

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings include changes to FIGS. 2 and 6, each of which included a typographical error in block 201. Specifically, the misspelling of “Transceiver” has been corrected.

Attachment: Replacement sheets

REMARKS

This response is believed to be fully responsive to the non-final Office Action (“Office Action”) dated January 26, 2007. Claims 1-2, 4-5, 7-18, 20-25, 27-29, 31-32, 34, 36-40, 42, 44-45, and 47-50 are pending. Claims 2 and 45 were rejected under 35 U.S.C. § 112. Additionally, all claims were rejected under 35 U.S.C. § 103 as allegedly obvious over U.S. Patent 5,973,722 (“Wakai”) in view of certain allegedly inherent properties thereof. Claim 48 was objected to. Claims 1, 2, 4, 5, 7, 12, 15, 24, 27, 31, 37, 42, 45, and 48-50 are currently amended. Claims 3 and 26 are canceled.

For at least the following reasons, the rejections of all pending claims should be withdrawn and the claims should be passed to issue. Further, while this paper is believed to completely address all pending rejections, Applicants reserve the right to set forth other reasons supporting the patentability of the claims, including reasons supporting the separate patentability of dependent claims not explicitly addressed herein, in future papers. Further, Applicants do not necessarily acquiesce to the Examiner’s claim interpretations set forth in the Office Action (pages 3-5).

I. Section 112 Rejections

Claim 2:

Claim 2 was rejected as allegedly “vague, confusing, and indefinite.” The Examiner asserted that it is unclear whether a network and a separate interface are claimed, or whether the interface is a component of the network. While Applicants do not acquiesce in the stated grounds of rejection, to advance prosecution claim 1 has been amended to recite “A digital data distribution system for an automobile comprising: a digital data network... and, an interface....” Therefore, the Section 112 rejection of claim 2 should be withdrawn.

Claim 45:

Claim 45 was rejected due to a lack of antecedent basis for the recitation of “said digital data network.” The claim has been amended to recite “a digital data network” in the preamble to provide

antecedent basis for “said digital data network” recited in lines 9-10 of the claim. Therefore, the Section 112 rejection of claim 45 should be withdrawn.

II. Section 103 Rejections

A. The Law

With respect to the present Section 103 rejections, the Examiner has failed to meet the burden of stating a prima facie case of obviousness. A prima facie case of obviousness requires that:

first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

MPEP, § 2143 (citing *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

Appellants respectfully submit that the first requirement for a prima facie case of obviousness set forth above is not inconsistent with the United States Supreme Court’s recent decision in *KSR International Co. v. Teleflex, Inc.*, ___ U.S. ___, (April 30, 2007) (citations herein are taken from the Court’s Bench Opinion). In *KSR*, the Supreme Court stated that

it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

Id. at 15. The Court further explained that

What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under §103. One of the ways in which a patent’s subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent’s claims.

Id. at 16. Accordingly, the Court made clear that “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known and

in the prior art.” Id. at 14. In summary, *KSR* plainly does not disturb the well-settled proposition that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984); M.P.E.P § 2141.02.

Further, the Examiner’s failure to state a prima facie case of obviousness stems in part from the Examiner’s misplaced reliance on properties improperly alleged to be inherent in the prior art. “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is *necessarily present* in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.’ ” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (emphasis added); M.P.E.P § 2112.

As explained in detail below, the Examiner has failed to state a prima facie case of obviousness. Specifically, the Examiner’s allegations that certain claim elements are inherently present in the prior art are based merely on speculation that fails to demonstrate that each element is necessarily present. Further, Wakai not only fails to teach or suggest all elements of Applicants’ claims, but actually teaches away from the claims.

B. Overview of the System Disclosed by Wakai

Wakai discloses an in-flight entertainment system for an airplane. (Wakai, Abstract.) The system maintains stored audiovisual content on media servers. (Wakai, 5:51-55.) Additional content can be provided to the system via a system interface unit (SIU). (Wakai, 6:34-36.) An audio reproduction unit (ARU), video reproduction unit (VRU), and camera provide content to the SIU. (Wakai, 6:45-63.) Content is distributed throughout the plane via an ATM network provided by an ATM switch. (Wakai, 8:39-43.) Zone units connect to the ATM network and provide content to seat electronics units (SEU) via an IEEE 1394 serial bus. (Id.) The SEUs include digital-to-analog converters and attached audiovisual output devices in order to present content to passengers. (Wakai, 3:27-30.) Additionally, an attendant control panel provides an interface to process

payments and upload content into the system. (Wakai, 12:16-13:6.). As discussed below, Wakai lacks numerous elements recited in Applicants' claims.

C. Claims 1 and 24

In the Office Action, independent claims 1 and 24 were rejected as obvious over Wakai in view of certain allegedly inherent properties thereof. However, at least the below discussed claim recitations are not taught or suggested by Wakai, nor do any inherent properties of Wakai read on such recitations.

1. "at least one paired analog audio signal..."

Claim 1 recites in part "at least one paired analog audio signal input and analog video signal input." The Examiner alleged in the Office Action (page 7) that this recitation is taught by Wakai's "external audio/visual input" (Wakai, Fig. 1; 7:2-3). However, Wakai does not provide any disclosure concerning the "external audio/video input" that teaches or suggests that the input includes "at least one paired analog audio signal input and analog video signal input." Specifically, Wakai discloses that "[t]he system interface unit 118 is also coupled to receive an external audio/video input." (Wakai, 7:2-3.) This cursory statement is the extent of Wakai's disclosure concerning the "external audio/video input." With no additional information concerning the described input, there can be no showing that Wakai's external audio/video input is "at least one paired analog audio signal input and analog video signal input." The Section 103 rejection of claim 1 should be withdrawn for at least this reason.

2. "an analog-to-digital converter...."

Claim 1 further recites in part an "analog-to-digital converter connected to said audio signal input." Wakai does not inherently disclose this element as asserted by the Examiner. (Office Action, page 7.) In fact, it appears that any signals received by Wakai's System Interface Unit are already digitized and therefore do not require an "analog-to-digital converter." In fact Wakai's Background of the Invention section explains that "[w]hat is ... needed is a video on demand in-

flight entertainment system which uses complete end-to-end digital delivery....” (Wakai, 2:58-60.) Wakai thus teaches away from any need for an “analog-to-digital converter.”

Wakai further teaches away from “analog-to-digital” conversion by teaching only digital-to-analog conversion. Wakai explains that “[a]ll communications across the networks are transmitted as digital data and when necessary are converted to analog signals at the seat electronics units.” (Wakai, 3:27-30.) Moreover, a text search of Wakai reveals that all ten of the occurrences of the term “analog” appear in the context of converting digital content to analog. For example, Wakai discloses that “a receiving application will receive digital data ... not analog data....” (Wakai, 8:30-32.) Given this complete focus on digital content, one of ordinary skill would have understood that analog content is not input into Wakai’s system. Accordingly, Wakai fails to teach or suggest an “analog-to-digital converter connected to said audio signal input.” The Section 103 rejection of claim 1 should be withdrawn for at least this reason.

3. “a video decoder...”

Claim 1 further recites “a video decoder connected to said video signal input for decoding and digitizing an incoming video signal....” The examiner acknowledged that Wakai does not disclose the use of a “video decoder,” but argued that “the video decoder and digitizer and audio analog-to-digital converter are deemed inherent to Wakai” because allegedly “[w]ithout an analog-to-digital converter for the video and audio signals, these signals cannot be transmitted over the digital network.” (Office Action, page 7.) However, Wakai fails to teach or suggest “a video decoder connected to said video signal input for decoding and digitizing an incoming video signal.” As noted above, Wakai teaches “end-to-end digital delivery,” and therefore teaches away from “decoding and digitizing an incoming video signal.” The Section 103 rejection of claim 1 should be withdrawn for at least this reason.

4. “at least one connection to said digital data network ...”

Claim 1 further recites in part “at least one connection to said digital data network for receiving an output thereof and providing said output to an audiovisual output device.” The Examiner alleged (Office Action, p. 15) that the foregoing recitation, previously included in now-

cancelled claim 26, is taught by Wakai's audio reproduction unit (ARU) and video reproduction unit (VRU), shown connected to the system interface unit (SIU), ATM switch, and zone units. (Wakai, Fig. 1.) However, Wakai's ARU and VRU cannot read on the recited "at least one audio visual output device" because neither component is configured for "receiving ... said audiovisual data stream."

Wakai actually teaches away from "at least one connection to said digital data network for receiving an output thereof and providing said output to an audiovisual output device." (Wakai, 18:55-19:17.) Referring back to the summary of Wakai's system provided earlier, audiovisual content is output from the system at the seat electronics units (SEU). Wakai teaches the use of zone units as intermediary devices between the data network (ATM Switch) and the audiovisual output devices (SEU). Specifically, "[d]ata transmitted from the headend control system to the seats is sent over the ATM network, through the ATM switch 116 to the proper zone unit 138 and 140, where it is adapted to the IEEE 1394 format and delivered to the proper seat electronic unit over the IEEE 1394 serial bus." (Wakai, 8:39-43.) Wakai requires the zone units as intermediary devices in order to "eliminate network bottlenecks." (Wakai, 19:9.) Wakai makes clear that directly connecting the audiovisual output devices (SEUs) to the data network could make the system unusable by "flooding the network." (Wakai, 19:13.) Thus, Wakai would have dissuaded one of ordinary skill from the recited "at least one connection to said digital data network for receiving an output thereof and providing said output to an audiovisual output device."

Accordingly, if Wakai's SEUs are interpreted as audiovisual output devices, the SEUs also do not teach or suggest "at least one connection to said digital data network for receiving an output thereof and providing said output to an audiovisual output device." As explained above, the SEUs do not connect to the data network. Instead the SEUs connect to the zone units by way of the IEEE 1394 serial bus. Wakai not only discloses an intermediary device between the network and the audiovisual output devices, but actually teaches away from the claim recitation "at least one connection to said digital data network for receiving an output thereof and providing said output to an audiovisual output device." The Section 103 rejection of claim 1 should be withdrawn for at least this reason.

Claim 1 has been discussed as an exemplary claim such that the foregoing remarks apply equally to claim 24. Accordingly, for at least the foregoing reasons, independent claims 1 and 24, and also claims 2, 4-5, 25, and 27-29 depending respectively therefrom, are allowable over the prior art of record.

D. Claim 7

Independent Claim 7 was rejected as obvious over Wakai in view of certain allegedly inherent properties thereof. However, Wakai neither teaches nor suggests all of the elements of claim 7 including at least those discussed below. Further, Applicants note that to the extent that claim 7 includes recitations similar to those of claim 1, the remarks presented with respect to the recitations of claim 1 are equally valid with respect to the rejection of claim 7.

1. “an optical disc drive”

Claim 7 recites in part “an optical disc drive ... wherein said optical disc drive outputs an analog video signal.” The Examiner alleged (Office Action, p. 11) that this recitation is taught by Wakai’s Video Reproduction Unit (VRU) and CD Drive (Wakai, FIGs. 1 and 15B). However, Wakai does not teach or suggest “an optical disc drive ... wherein said optical disc drive outputs an analog video signal.” Specifically, Wakai discloses that “[t]he video reproducer units 122 could also include one or more video disk players.” (Wakai, 6:51-52.) Wakai makes no mention of the type of signal that is output from the video disk players. The Examiner has made an unfounded assumption about the type of output from Wakai’s video reproduction units. As discussed above, a rejection based on an allegedly inherent feature of a reference must include a conclusion that the feature is necessarily present. In fact, Wakai’s VRU apparently outputs a digital signal and it is therefore improper to conclude that “an analog video signal” is necessarily present. Accordingly, Wakai fails to teach or suggest “an optical disc drive ... wherein said optical disc drive outputs an analog video signal.” The Section 103 rejection of claim 7 should be withdrawn for at least this reason.

Accordingly, for at least the foregoing reasons, independent claim 7, and also the claims 8-14 depending therefrom, are allowable over the prior art of record.

E. Claim 12

Claim 12 is allowable over the prior art of record because of its dependence from Claim 7. Further, claim 12 is separately patentable because it recites “said optical disc drive and said interface are enclosed in a common enclosure.” The Examiner acknowledged that Wakai does not disclose this claim element. (Office Action, p. 12.) The Examiner then made the unsupported assertion that it would be obvious to modify Wakai’s system to work in an automobile by using a common enclosure because the motivation to make such a modification comes from space restrictions in an automobile. (Id.) However, the Examiner has failed to cite any prior art teaching or suggesting “said optical disc drive and said interface are enclosed in a common enclosure,” much less has the Examiner provided sufficient support for any reason to have modified Wakai. Accordingly, to the extent the Examiner intends to take Official Notice of known implementations of “said optical disc drive and said interface are enclosed in a common enclosure,” Applicants timely request that the Examiner provide documentary evidence to support the taking of Official Notice as is required by 37 CFR § 1.104(d)(2) and MPEP § 2144.03. For at least this additional reason dependent claim 12 is allowable over the prior art of record.

F. Claims 15, 37 and 48

Claims 15, 37, and 48 were rejected as obvious over Wakai in view of certain allegedly inherent properties thereof. However, Wakai neither teaches nor suggests all of the elements of these claims including at least those discussed below. Applicants note that to the extent that claims 15, 37 and 48 include recitations similar to those of claim 1, the remarks presented with respect to the recitations of claim 1 are equally valid against the rejection of claims 15, 37 and 48.

1. “an IEEE 1394 port...”

Claim 15 recites in part “an IEEE 1394 port for receiving an IEEE 1394 bus connected to a digital video camera” The Examiner alleged (Office Action, p. 13) that this recitation is taught by Wakai’s “Camera” (Wakai, FIG. 1; 18:46-49; 18:3-19:17). However, Wakai neither teaches nor suggests “an IEEE 1394 bus connected to a digital video camera.” Recall from the brief overview

of Wakai's system provided above that a camera is one input to the system interface unit. (Wakai, Fig. 1;18:46-49.) Nowhere does Wakai disclose that the camera includes "an IEEE 1394 bus connected to a digital video camera." Wakai at most discloses IEEE 1394 ports at the zone units and the seat electronics units (SEU): "Data transmitted from the headend control system to the seats is sent over the ATM network, through the ATM switch 116 to the proper zone unit 138 and 140, where it is adapted to the IEEE 1394 format and delivered to the proper seat electronics unit over the IEEE serial bus." (Wakai, 8:39-43.) Clearly, Wakai's IEEE 1394 ports provide an IEEE 1394 serial bus connection between the zone units and the seat electronics units and no more. Wakai's camera is totally disassociated with the IEEE 1394 ports located in the zone units and the seat electronic units. Therefore, Wakai fails to teach or suggest "an IEEE 1394 port for receiving an IEEE 1394 bus connected to a digital video camera." The Section 103 rejection of claim 15 should be withdrawn for at least this reason.

2. "a micro-controller for receiving user commands..."

Claim 15 further recites in part "a micro-controller for receiving user commands for said digital video camera via said digital data network and controlling said digital video camera in accordance with said user commands." The Examiner has made no specific allegations regarding how Wakai teaches or suggests this recitation and has therefore failed to state a prima facie case of obviousness for claim 15 for at least this reason. In fact, Wakai does not teach or suggest the foregoing recitation of claim 15. In all of the portions of Wakai that discuss the camera element (6:60; 13:18; 13:38; 18:48; 20:63), there is no teaching or suggestion of "a micro-controller for receiving user commands for said digital video camera...." Therefore, Wakai's camera is, at a minimum, not controlled by "a micro-controller for receiving user commands ... via said digital data network" and is apparently not controlled at all. The Section 103 rejection of claim 15 should be withdrawn for at least this reason.

3. "an interface for interfacing said IEEE 1394 port..."

Claim 15 further recites "an interface for interfacing said IEEE 1394 port with said digital data network" where "said IEEE 1394 port" is the previously recited "IEEE 1394 port for receiving

an IEEE 1394 bus connected to a digital video camera.” As explained previously, Wakai’s IEEE 1394 ports are located at the zone units. Accordingly, even if Wakai’s zone units include an interface for interfacing an IEEE 1394 port with a digital data network, they clearly fail to include “an IEEE 1394 port for receiving an IEEE 1394 bus connected to a digital video camera.” Accordingly, Wakai fails to teach or suggest “an interface for interfacing said IEEE 1394 port with said digital data network.” The Section 103 rejection of claim 15 should be withdrawn for at least this reason.

Claim 15 has been discussed as an exemplary claim such that the foregoing remarks apply equally to claims 37 and 48. Accordingly, for at least the foregoing reasons, independent claims 15, 37, and 48, and also the claims 16-18, 20-23, 38-40 depending respectively therefrom, are allowable over the prior art of record.

G. Claim 31, 42 and 45

Claims 31, 42, and 45 were rejected as obvious over Wakai in view of certain allegedly inherent properties thereof. Claim 31 is discussed herein as an exemplary claim. However, Wakai neither teaches nor suggests all of the elements of these claims including at least those discussed below. Applicants note that to the extent that claims 31, 42 and 45 include recitations similar to those of claim 7, the remarks presented with respect to the recitations of claim 7 are equally valid against the rejection of claims 31, 42 and 45.

1. “remotely controlling said optical disc drive...”

Claim 31 recites in part “remotely controlling said optical disc drive by entering user commands which are transmitted to said optical disc drive via said network.” The Examiner alleged that this recitation is taught by the console/keyboard of the attendant control panel (ACP) of Wakai. (Office Action, p. 16.) Wakai discloses multiple optical disc drives. Wakai discloses a CD ROM drive (Wakai, Fig. 6, #604), an Audio Reproduction Unit (ARU) (Wakai, Fig. 1, #120) which can be a compact disc player (Wakai, 6:46-47), and also a Video Reproduction Unit (VRU) (Wakai, Fig. 1, #122) which can be an optical disc drive (Wakai, 6:52). Because it is unclear which of these optical

drives allegedly reads on the claim recitation “said optical disc drive,” each will be discussed in turn.

Wakai’s attendant control panel includes a keyboard and a CD-Rom drive as part of an integrated system. (Wakai, Fig. 6; 12:26-28.) There is no teaching or suggestion of the CD-Rom drive being connected to the keyboard via a network. Accordingly, the keyboard of Wakai’s ACP cannot “remotely control... said optical disc drive by entering user commands which are transmitted to said optical disc drive via said network.”

The ARU and VRU are connected to an ISA bus of the System Interface Unit (SIU). (Wakai, Fig.7; 6:46-47.) The SIU is connected to the data network provided by the ATM switch. (Wakai, Fig.1.) The ACP is indirectly connected, by way of the System Manager Unit (114), to the data network provided by the ATM switch. (Id.) Just because both the ACP and the SIU are, eventually, connected to the ATM network does not mean that the keyboard of the ACP can “remotely control... said optical disc drive [i.e., the ARU or VRU connected to the ISA bus of the SIU] by entering user commands which are transmitted to said optical disc drive via said network.”

Further, Wakai includes no disclosure relating to how one might control the ARU and VRU. Therefore, Wakai does not teach or suggest “remotely controlling said optical disc drive by entering user commands which are transmitted to said optical disc drive via said network.” The Section 103 rejection of claim 15 should be withdrawn for at least this reason.

Claim 31 has been discussed as an exemplary claim such that the foregoing remarks apply equally claims 42 and 45. Accordingly, for at least the foregoing reasons, independent claims 31, 42, and 45, and also the claims 32, 34, 36, 44, and 47 depending respectively therefrom, are allowable over the prior art of record.

H. Claim 49 and 50

Claims 49 and 50 were rejected as obvious over Wakai in view of certain Officially Noticed elements. However, Wakai neither teaches nor suggests all of the elements of claims 49 and 50 including at least those discussed below. Claim 49 is discussed herein as an exemplary claim. Applicants note that to the extent that claims 49 and 50 include recitations similar to those of claim

1, the remarks presented with respect to the recitations of claim 1 are equally valid against the rejection of claim 49 and 50.

1. “an S-video input paired with a third analog audio signal input”

Claim 49 recites “an S-video input paired with a third analog audio signal input.” In rejecting this claim, the examiner improperly cited to a Wikipedia entry on S-video to support a taking of Official Notice that S-video connections “are well known in the art to be inexpensive and widely used for DVD players.” (Office Action, p. 18.) Wikipedia articles are improper either as direct prior art or in support of Official Notice. In a widely publicized policy statement, Commissioner John Doll stated that Wikipedia has been “taken ... off our list of accepted sources of information.” (BUSINESS WEEK, *Kicking Wiki Out of the Patent Office*, Up Front, Sep. 4, 2006, attached hereto as Exhibit A.) Accordingly, the Examiner’s Official Notice remains unsupported. Applicants timely request that the Examiner provide documentary evidence to support the taking of Official Notice as is required by 37 CFR § 1.104(d)(2) and MPEP § 2144.03. As explained in previous sections, Wakai does not teach or suggest the input of analog sources. Therefore, even if an S-video connection is well known in the art such a connection is not combinable with Wakai. Therefore, Wakai with or without an S-video connection fails to teach or suggest “an S-video input paired with a third analog audio signal input.” The Section 103 rejection of claim 49 should be withdrawn for at least this reason.

2. “a first, ... second, ... third, ... and fourth multiplex ...”

Claim 49 further recites:

a first multiplexer for receiving said first, second and S- video signals and providing a selected video signal to said first video decoder; a second multiplexer for receiving said first, second and third audio signals and providing a selected audio signal to said first analog-to-digital converter; a third multiplexer for receiving said first, second and S- video signals and providing a selected video signal to said second video decoder; and a fourth multiplexer for receiving said first, second and third audio signals and providing a selected audio signal to said second analog-to-digital converter.”

While acknowledging that Wakai fails to teach or suggest such a recitation, the Examiner took Official Notice that “using multiplexer[s] ... is well known in the art to select one of many data-

sources....” (Office Action, p. 18.) Even if this notice were proper, the Examiner has not stated a prima facie case of obviousness by demonstrating from the prior art a teaching or suggestion of claim 49’s recited first, second, third, and fourth multiplexers attached to specific inputs and specific outputs. This detailed combination of multiplexed inputs connecting to specific outputs is clearly not taught or suggested by Wakai. The Section 103 rejection of claim 49 should be withdrawn for at least this reason.

Claim 49 has been discussed as an exemplary claim such that the foregoing remarks apply equally claim 50. Accordingly, for at least the foregoing reasons, independent claims 49 and 50 are allowable over the prior art of record.

CONCLUSION

All rejections have been addressed. In view of the above, the presently pending claims are believed to be in condition for allowance. Accordingly, reconsideration and allowance are respectfully requested and the Examiner is respectfully requested to pass this application to issue. It is believed that there are no fees associated with the filing of this paper. However, if any additional fees are required, they may be charged to Deposit Account 18-0013, under order number 65783-0009. To the extent necessary, a petition for extension of time under 37 C.F.R. 1.136(a) is hereby made, the fee for which should be charged against the aforementioned account.

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